

ABSTRACT**METHOD AND SYSTEM FOR SUPPLIER-BASED MEMORY SPECULATION IN A MEMORY SUBSYSTEM OF A DATA PROCESSING SYSTEM**

A data processing system includes one or more processing cores, a system memory having multiple rows of data storage, and a memory controller that controls access to the system memory and performs supplier-based memory speculation. The memory controller includes a memory speculation table that stores historical information regarding prior memory accesses. In response to a memory access request, the memory controller directs an access to a selected row in the system memory to service the memory access request. The memory controller speculatively directs that the selected row will continue to be energized following the access based upon the historical information in the memory speculation table, so that access latency of an immediately subsequent memory access is reduced.